

ABSTRACT OF THE DISCLOSURE

Apparatus and methods are disclosed for forming a reaction chamber having relatively small volumes. An apparatus comprises two elements and a mechanism for
5 introducing a gas to form a movable aerodynamic seal between the elements. In this manner a chamber having a controllable interior environment is formed. One of the elements may have at least a portion of a device for dispensing reagents sealingly affixed therein. The other element may be adapted for introduction of a support into the interior of the chamber formed by the top and the bottom element. The apparatus may
10 be used in methods for synthesizing biopolymers on a support.

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